IIIF: The Universal Key

Unlocking the World's Digital Treasures

A guide for GLAM professionals, Developers, and Researchers.

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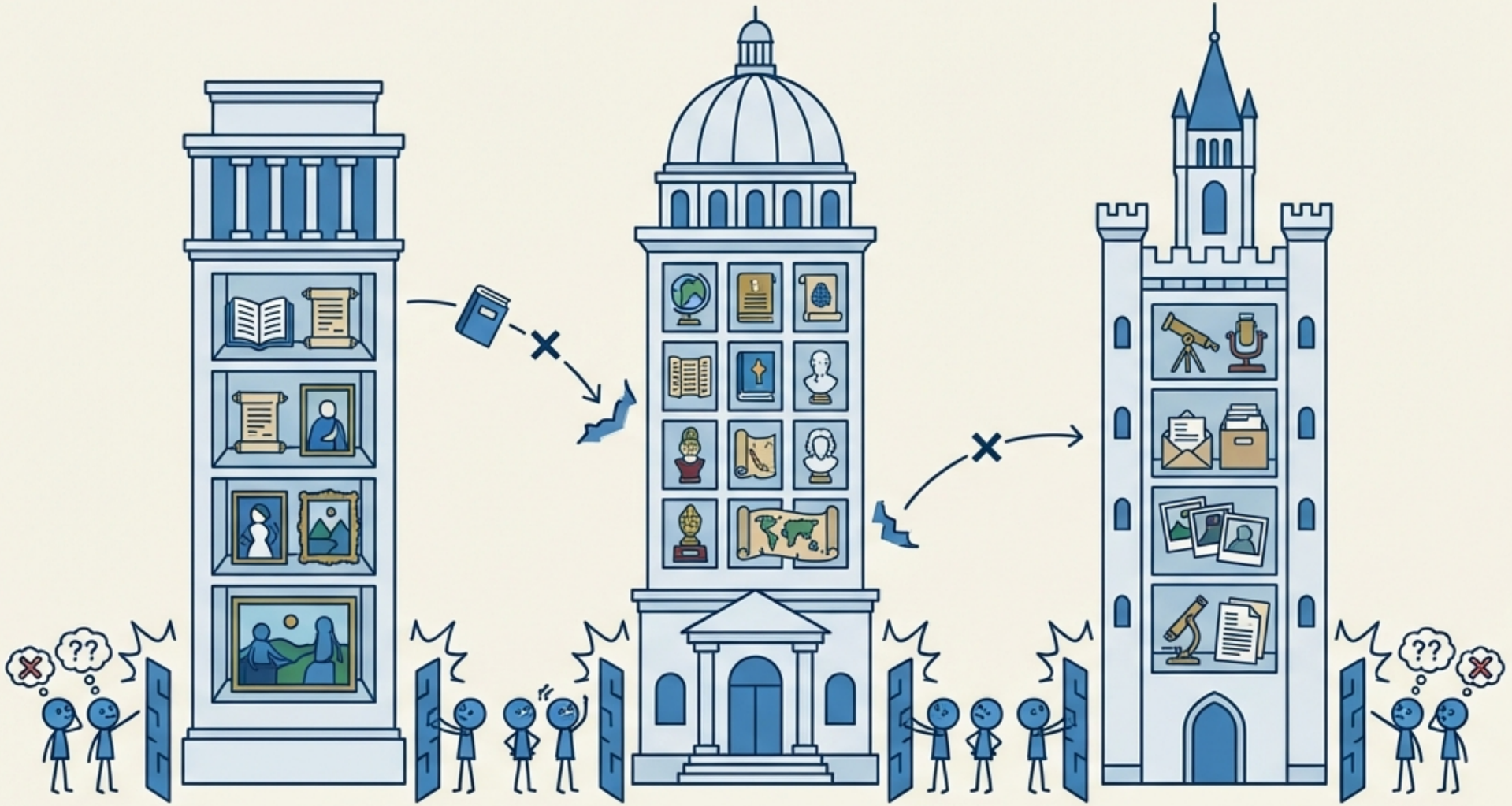
The Problem: Trapped Treasures



The Walled Garden:
Museums and libraries have historically built custom, incompatible viewers.

The Frustration:
"You can look inside, but you can't grab a flower and compare it with one from the garden next door."

The Result:
Comparing artifacts requires flipping between browser tabs with no shared technical language.

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Enter the International Image Interoperability Framework

Definition

A set of open standards for delivering high-quality, attributed digital objects online at scale.

Shared APIs

A technical common language for images and metadata.

Community & Consortium

An international group of software companies, libraries, and museums funded by leading cultural institutions.

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Digital Museum Editorial

One Viewer, Billions of Images

Break down the walls between repositories.

For Researchers: Compare, annotate, and share across repositories without barriers.

For Developers: Write a viewer once; reuse it for billions of compatible images.

For Institutions: Publish once, reuse often without vendor lock-in.

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Digital Museum Editorial

The Two Core Pillars

The Image API

The Recipe

Precise instructions for retrieving pixels (size, crop, quality).

The Presentation API

The Blueprint

The context and structure (metadata, page order, chapters).

The Takeaway: One handles the pixels, the other handles the object.

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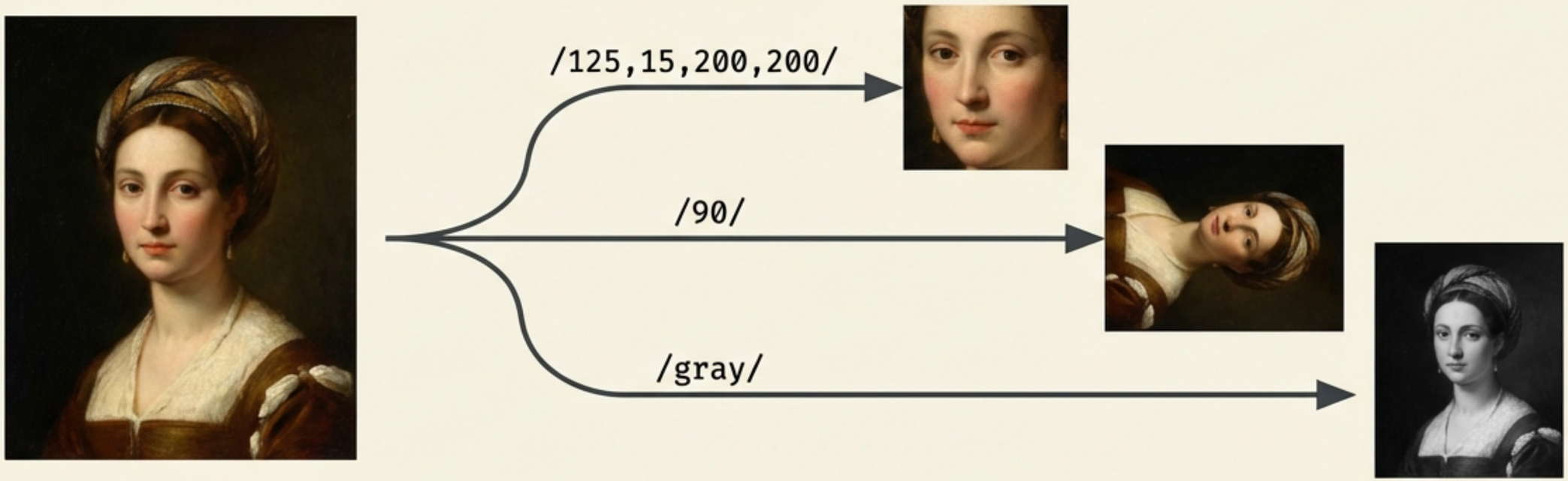
A URL is a Command

{scheme}://{server}/{identifier}/{region}/{size}/{rotation}/{quality}.{format}

{scheme} ://{server} /{identifier} /{region} /{size} /{rotation} /{quality} .{format}



"A perfect, precise recipe for any image you could ever want."

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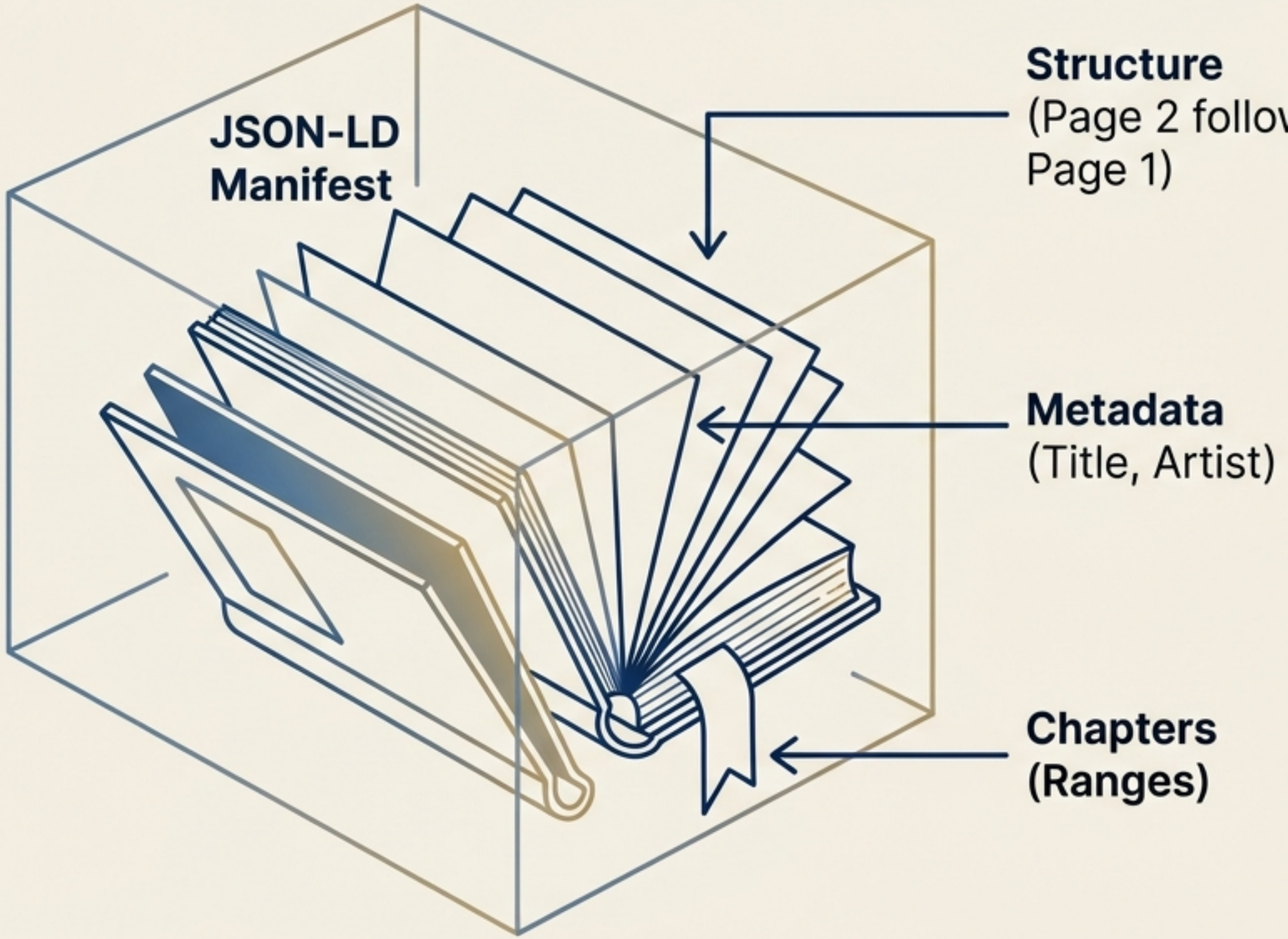
The Manifest: A Curator’s Guide



- **Context over Content:** A folder of JPEGs lacks structure. The Manifest provides the ‘Blueprint.’
- **Function:** It identifies chapters, sequences pages, and holds metadata.
- **Format:** Standardized JSON-LD that any IIIF-compatible viewer can read.

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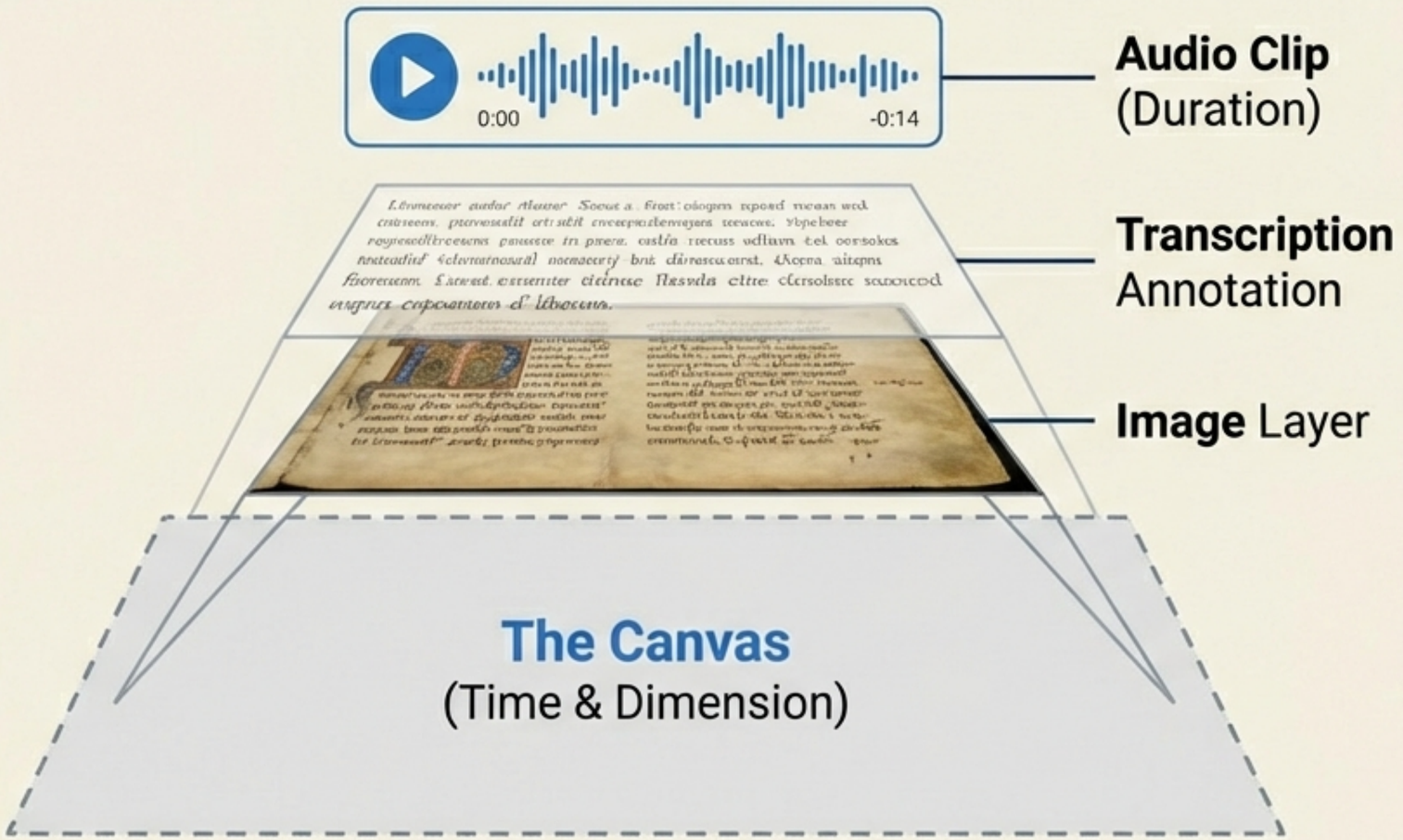
The Canvas: A Virtual Space



- **Concept:** An abstract space with dimensions (height/width) and time (duration).
- **Motivation:** Content is ‘painted’ onto the canvas.
- **Flexibility:** Allows for assembling complex objects like a manuscript with transcriptions or a video with subtitles.

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From Server to Screen

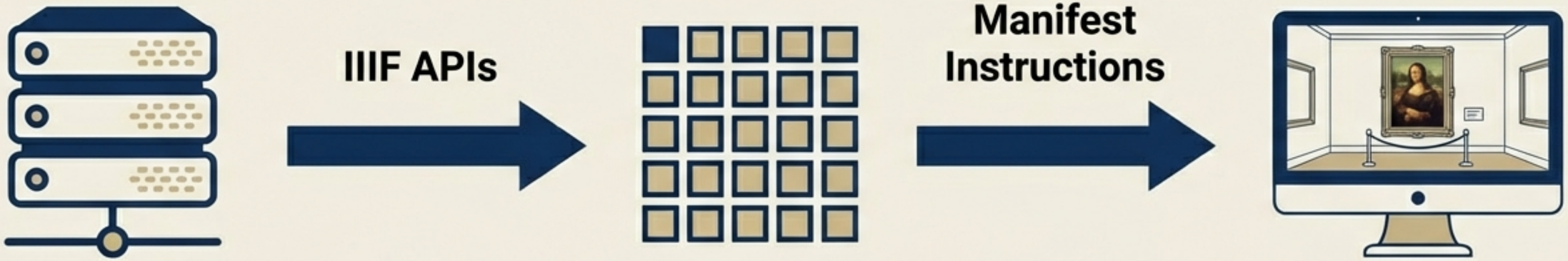

Image Server
Holds high-res master files

Image Tiles
Serve only requested pixels

The Viewer
Mirador / Universal Viewer

Deep Zoom: The Image API serves small ‘tiles’ on demand.

Performance: Users stream only the pixels they need, not the full 5GB file.

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Bringing Masterpieces to Life

Case Study: The Rijksmuseum

- **Deep Zoom:** Inspect details invisible to the naked eye.
- **Curatorial Layer:** Overlay notes and annotations directly onto the artwork pixels.
- **Result:** A ‘rich online exhibition’ experience that feels interactive and real.

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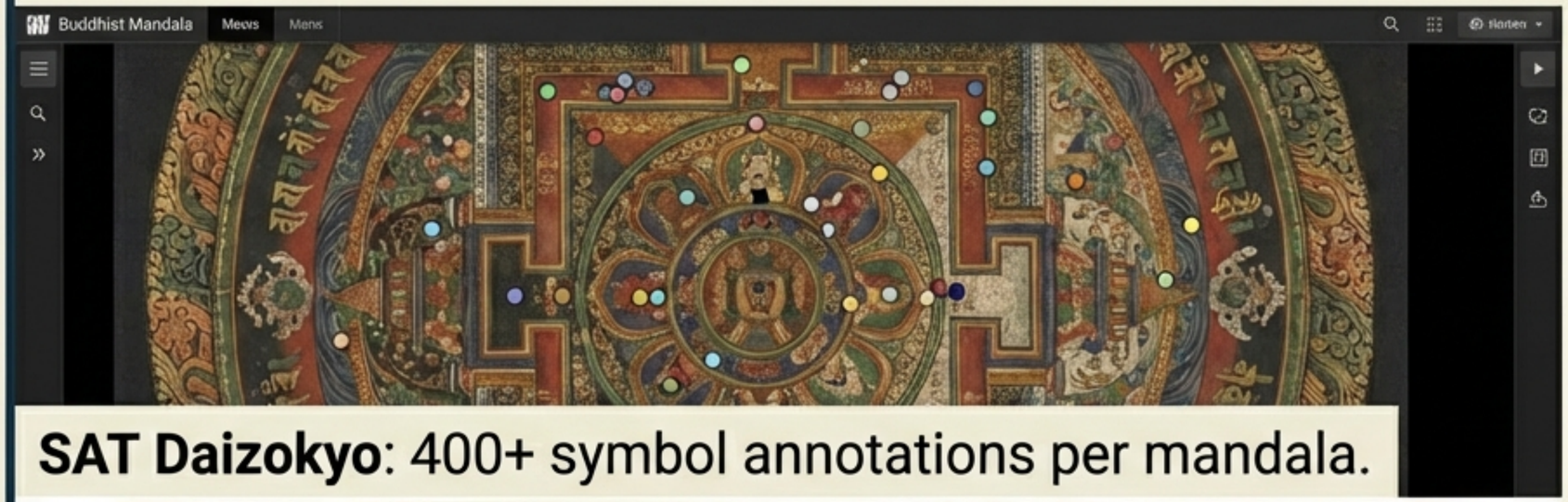
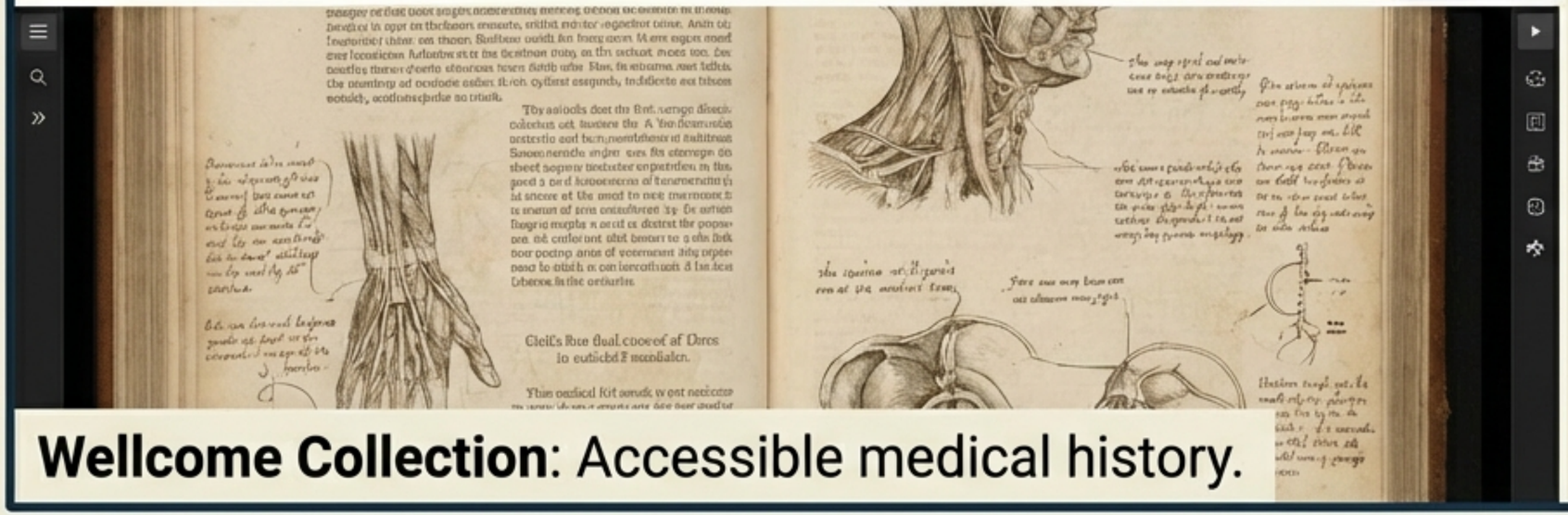
Enabling Deep Research



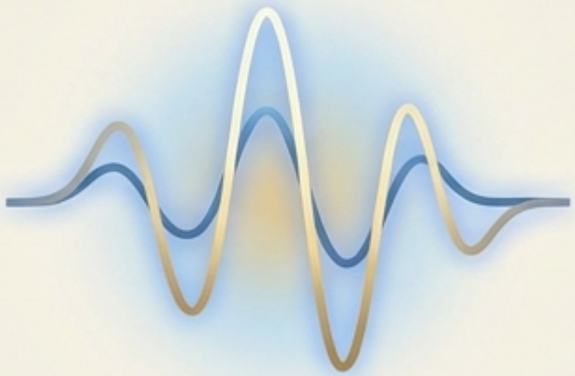
SAT Daizokyo: 400+ symbol annotations per mandala.



Wellcome Collection: Accessible medical history.

Interoperability in Action: Compare a map from the British Library with one from the Library of Congress side-by-side in the same viewer.

Beyond the Static Image



Audio / Visual

Presentation API 3.0 integrates audio and video

Time Control

Use `timeMode` to trim, scale, or loop media on a canvas

Maps

Apply geocoordinates to fragments for spatial analysis

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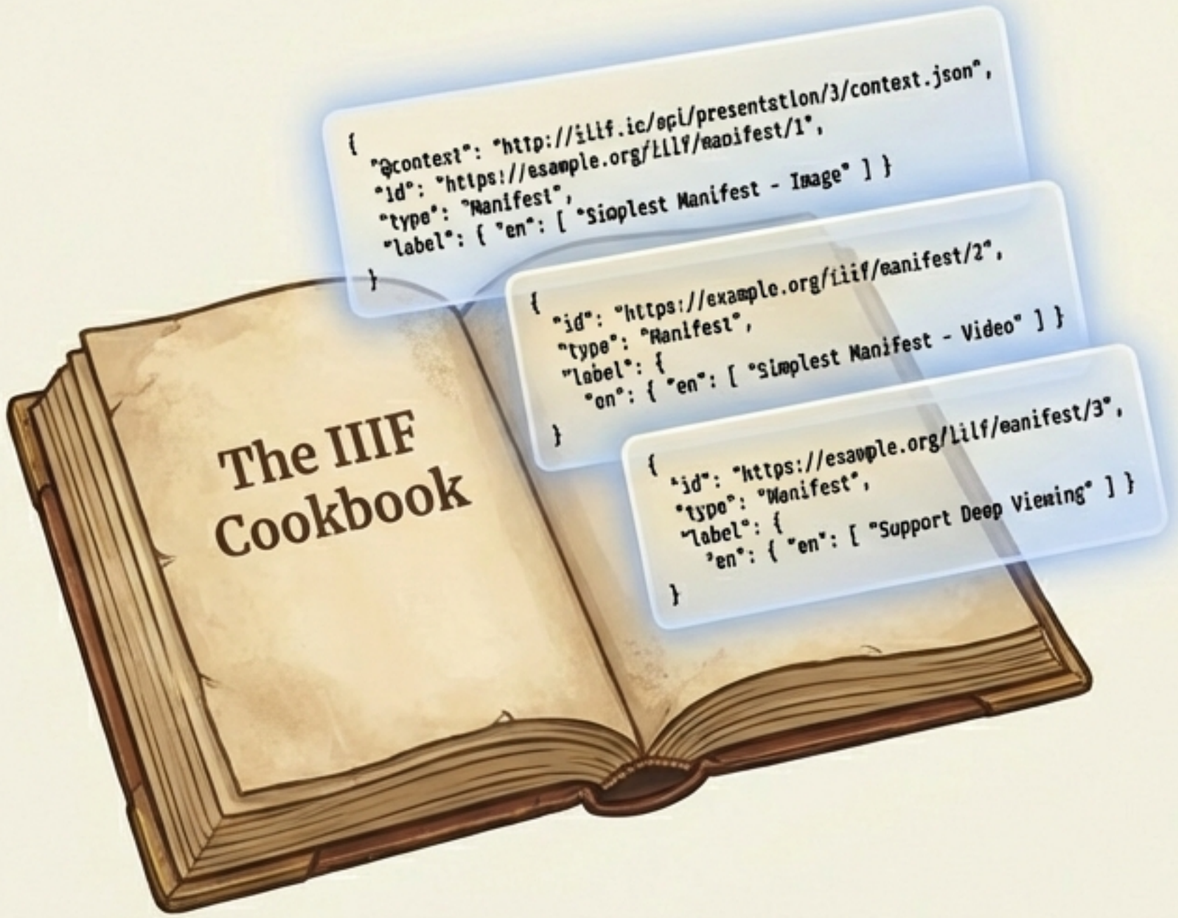
Start with Recipes



Don’t Reinvent: Use community-tested patterns for common use cases.

Popular Recipes:

- Simplest Manifest - Image
- Simplest Manifest - Video
- Support Deep Viewing

Action: Copy, paste, and adapt from the IIIF Cookbook.

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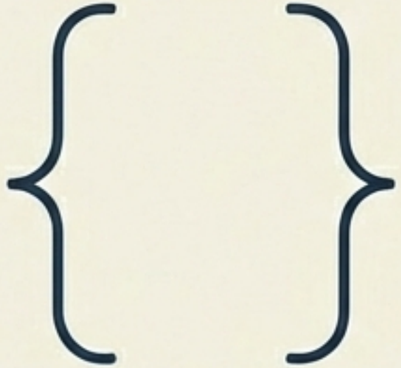
Why Adopt IIIF?

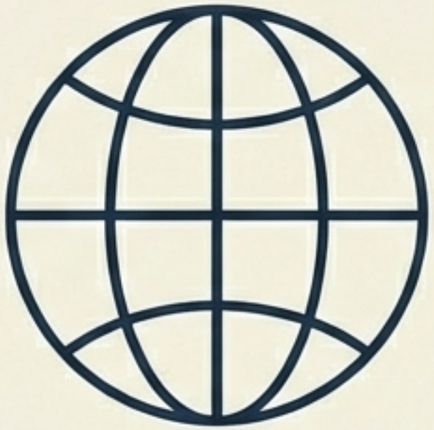
Researcher

Freedom to examine, compare, and share without barriers.



Developer

Efficiency via ‘write once, reuse often’ and open-source tools.



Leader

Sustainability through cost-effective scaling and community-driven ethics.

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Join a Global Movement

Consortium: Funded by 69+ global technology leaders and cultural institutions.

Get Involved:

- Join the **#cookbook** Slack channel
- Attend the Annual Conference (Netherlands 2026)
- Read the Weekly Newsletter

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